



## PC Camera



**Owner's Manual**  
Please read before using this equipment.

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## Introduction

Your RadioShack PC Camera is designed for PCs that have a universal serial bus (USB) port. You can use the camera to make a video, capture still images, or post live video, chat, still pictures, and video clips to the World Wide Web. With the supplied fun-to-use application software, your camera is a powerful addition to your PC.

### Camera Features

**USB Operation** — lets you easily connect and begin using the camera. The camera uses the power provided through the USB bus directly from your computer — no batteries needed!

**CMOS Sensor** — provides high quality video images.

**320 × 240 Pixels Color Resolution (352 × 288 Pixels Maximum Resolution)** — provides excellent video quality.

**Snapshot Button** — lets you freeze any image captured by your camera.

**Auto Exposure Control** — the supplied software works with your camera to let you set the band frequency according to your local frequency and the set exposure speed.

**Auto White Balance Control** — lets you change the color image to your preference.

**Backlight Compensation** — the camera automatically compensates for poor image backlighting.

**Edge Enhancement** — the camera automatically provides clearer and sharper images.

**6½-Foot USB Cord** — lets you use the camera almost anywhere.

### Supplied Software

**WDM (Windows Device Model) TWAIN (Technology Without An Important Name) for Windows 98/2000** — lets you capture and transfer images from the camera to image editing programs such as Adobe PhotoShop, MGI PhotoSuite or Corel.

**Presto** — helps you create and manage your video and photo archives.

**Microsoft Internet Explorer Version 5.0** — web browser that lets you quickly view multimedia files such as image, GIF animation, video or sound files in your computer.

**Ulead Photo Explorer** — a perfect image viewer and image management tool for programs such as Microsoft Front Page or Netscape Navigator Gold, and a perfect image editor for programs such as Adobe PhotoShop and PhotoDeluxe, JASC PaintShop Pro, and Microsoft Picture It.

### FCC STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the *FCC Rules*. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

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However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

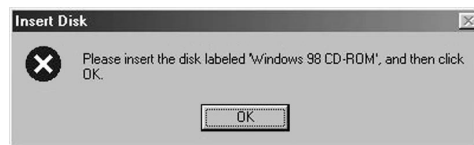
## SYSTEM REQUIREMENTS

- IBM® PC Pentium 266 MHz or compatible with one available USB port
- CD-ROM drive
- VGA or SVGA monitor
- 32MB or more of available internal memory (RAM)
- 150MB of free hard disk space
- Microsoft Windows® 98, Windows® 98 SE, Windows 2000, or Windows Me
- Microphone and speakers (optional)

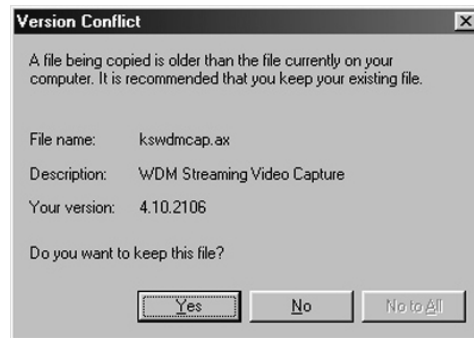
### Important:

- Your camera will not work with Windows 95. You must have Windows 98, Windows 98 SE, Windows 2000, or Windows Me installed on your computer to use the camera.
- Some software features might not work correctly on computers running Windows 98 First Release. For best compatibility, upgrade to Windows 98 SE or later.

To avoid installation problems, install the supplied iCam 320 driver software before connecting the camera to your PC. Before installing the driver software, have your original Windows CD handy (this is not necessary if the Windows installation files are located on your hard drive). When an *Insert Disk* box appears while you are installing the driver software, click **OK** and insert the CD.



If you have Windows 98 installed, a *Version Conflict* box appears. Click **Yes** to keep the file.



## APPLICATION SOFTWARE

Your camera comes with a CD-ROM that includes the drivers you need to operate the camera, as well as these applications. You can install the applications you want when you install the drivers. (See "Installing/Testing the Software/Hardware" on Page 4.)

**TWAIN Drivers and Utility** lets you use an image editing program, such as Adobe PhotoShop, MGI PhotoSuite, or Corel, to use the camera and all of the program's functions.

**Presto! Image Folio LE** is a complete multi-media image processing program which lets you quickly create new images or enhance old ones.

**Presto! Mr. Photo 1.5** is a single package solution that lets you work with digital images, create images, use other applications with images, transmit images over the Internet, and more.

**Presto! VideoWorks 4.2** is a quick and easy video editing program that lets you create live presentations.

**Ulead Photo Explorer 6.0** is a perfect visual front end for Microsoft Front Page, Netscape Navigator Gold, or almost any other image editor.

**Microsoft Internet Explorer 5.0** is a web browser that lets you quickly view any multi-media file (such as image, GIF animation, video or sound file) stored in your computer.

**Adobe Acrobat Reader 3.01** is a program which lets you read documents and material prepared in the popular .PDF format.

#### Notes:

- For information about Presto! applications, refer to their user's manuals included in the supplied CD-ROM (at *Start/Programs/Presto! (application name)/(application name)UserManual*).
- For information about Ulead Photo Explorer, refer to its online helps included on the supplied CD-ROM.

## Preparation

### CONFIGURING THE MONITOR

1. Open the Windows *Control Panel*, double-click **Display**, then click **Settings**.



2. Set **Color** to **High Color (16-bit)** or **True Color (24- or 32-bit)**. (For the best display, we recommend **True Color**).
3. Set **Screen area** to at least 800 × 600 pixels.

### INSTALLING/TESTING THE SOFTWARE/HARDWARE

The driver software and application software supplied with the camera is included in the supplied CD-ROM. It includes a Setup Wizard that makes installation easy.

**Important:** The steps in this section show you how to install the software using Windows 98. If you have Windows 98 SE, Windows 2000, or Windows Me, the steps might differ. Follow the prompts you see while using Windows 98 SE, Windows 2000 or Windows Me to install the software.

Follow these steps to install the software, connect the camera to your computer, and test the camera and software together.

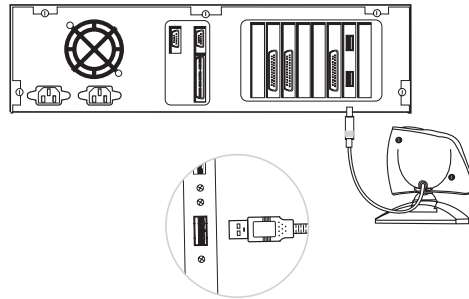
1. Start Windows 98 and quit all applications.
2. Insert the software CD into your CD-ROM drive. The CD starts automatically.

**Note:** If the CD does not start automatically, make sure the CD-ROM's door is completely shut. If the CD still does not start, the auto run option on your computer might be turned off. If this happens, click *My Computer*. The window shows the available drives on your computer. Then double-click the icon for your CD-ROM drive and double-click **setup.exe**. The CD starts and the *Select Components* screen appears.

3. Click on **Typical** (to select complete installation) or **Custom** (to select custom installation if you are installing a Presto! application), then click **Continue**.
4. Follow the prompts to install the driver and software for any or all of the applications listed under "Application Software" on Page 3 from the CD-ROM. Follow the instructions provided with the application software to install them.

**Note:** Some subsequent steps in this section assume that you installed the Presto! Mr. Photo 1.5 application software in Step 4. If you did not install this application software, the screens you see might differ from those documented here.

5. After you finish installing the software, restart your computer.
6. Plug one end of the built-in cable into your computer's USB port.



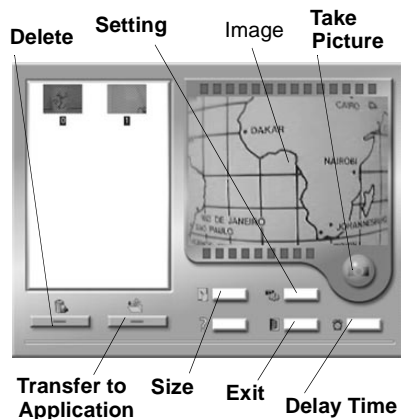
**Notes:**

- The cable fits only one way. If it does not fit, do not force it. Turn it over and try again.
  - Refer to your computer's owner's manual for the location of the USB port.
  - Some new computers also have a keyboard with a built-in USB port. In such cases, you can plug the camera's cable into either the keyboard or the computer.
7. To confirm that the camera is operating properly when you first install it, click **Start** on the task bar, then click **Programs**, **Presto! Mr. Photo 1.5**, and **Mr. Photo 1.5**. The Mr. Photo application software runs.
  8. Place the camera on a steady and level surface, then slowly rotate the camera so it aims at the target image.
  9. Place a light source behind the camera, facing the subject.

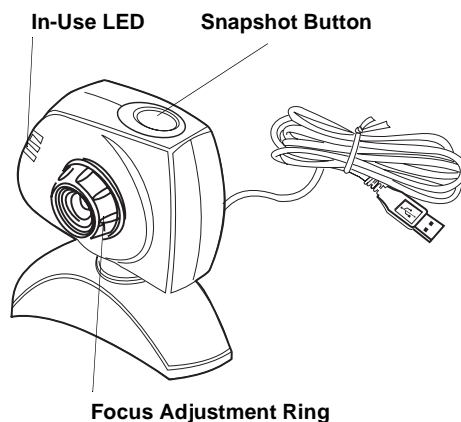
**Important:** Do not aim the camera directly at the light source.

**Hint:** For better images, maintain a consistent lighting environment. Do not mix fluorescent and other light types.

10. Click on the camera icon at the top left of the screen. The TWAIN window opens and you see the image captured by the camera.



11. To adjust the focus of the image you see, simply turn the focus adjustment ring on the front of the camera in either direction until you see the clearest image.



## Uninstalling the Software Driver

If you need to remove the driver, go to *Control Panel* then double click **Add/Remove Programs**. Select the driver for your camera, click **Add/Remove**, then reinstall it (see “Installing/Testing the Software/Hardware” on Page 4).

## ☐ Software Operation

### RECORDING VIDEO CLIPS OR CAPTURING STILL IMAGES

Use the camera with the supplied application software to record video clips and capture still images.

### USING TWAIN TO ACQUIRE IMAGES

Use the camera with the supplied TWAIN application software to acquire pictures using the supplied image editing program, other image editing programs, or other programs that can accept images. Any program that supports TWAIN can access the camera and make full use of its functions. These pro-

grams include Presto! Mr. Photo, MGI PhotoSuite, Adobe PhotoShop, CorelDraw, Ulead Photo Explorer, MetaCreation Painter, Adobe PhotoDeluxe, Ulead PhotoImpact, Newssoft Presto! PageManager, etc.

This section describes the TWAIN interface in detail and explains all the camera settings.

### Using Camera Commands

**Note:** The steps in this section are general descriptions of actions you can take to use your camera's commands. The screens you actually see might differ from those documented here.

After you install the camera and software, follow these steps to find and use the camera commands.

1. From the application software you are using, select **iCam320** as the source.

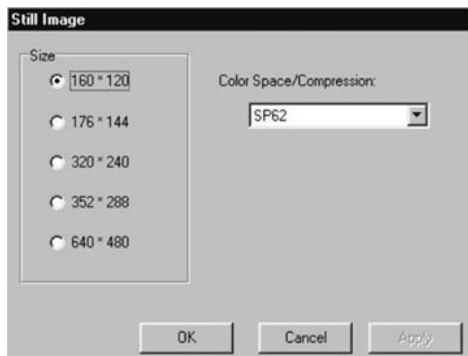


2. From the application software you are using, acquire the camera. The TWAIN window opens and you see the image captured by the camera.

## Image Format Settings

You can choose different image sizes, depending on your monitor's display size. The application software offers five image size choices. Select lower image sizes for low-resolution images or high image sizes for high-resolution images.

To change the image size, click on **Size** on the TWAIN window. The *Still Image* screen appears.



**Size** — Your camera's default image size setting is **320 \* 240**, but you can adjust this value to **160 \* 120**, **176 \* 144**, **352 \* 288**, or **640 \* 480**.

**Note:** The larger the image size you choose, the more memory space it occupies and the longer the file takes to transfer.

**Color Space/Compression** — Your camera can work with video images that are processed with characteristics called *color space* and *compression*. Your camera's default color space/compression setting is **I420**. Advanced users can adjust this value to **I420**, **SP62**, **IYUV**, or **RGB24**.

## Capturing and Transferring Images

Once you open the TWAIN window, the process used to capture and transfer images is the same, regardless of the application software you used with your camera.

**Note:** Depending on the application software you use to capture and transfer images, the steps you use might be different than these steps.

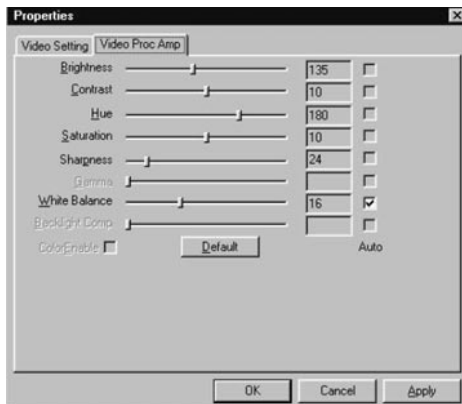
1. Start the application software you want to use to capture and transfer images.
2. Use the application software you chose to scan a new picture. The target image appears.
3. To capture an image, press the snapshot button on top of the camera or click on **Take Picture** on the TWAIN window. The camera freezes the image and displays it on the left screen of the TWAIN window.
4. To take more than one photo or direct transfer an image to an application, click **Delay Time** on the lower right side of the screen, then click the related button. The *Setup Self Time* dialog box appears.
5. To repeatedly take a photo, click on **Take picture repeatedly**, then select a display interval (from 1 to 100 seconds) for each

picture. The still images you selected appear, one by one, on the left side of the screen at the time interval you selected.

6. To adjust a photo's quality to your preference, click **Setting** on the TWAIN window, then adjust the video setting or the video processor/amplifier (shown under "Adjusting Video Setting" on Page 8 and "Adjusting Video Proc Amp (Processor/Amplifier)" on Page 8). Or, click **Size** to adjust the photo's image size.
7. To transfer a photo to your application software for future editing or posting, click the photo on the left side of the screen, then click **Transfer To Application**. The photo you selected is transferred to your application software.
8. To delete an unwanted photo, click the photo then click **Delete**.
9. To return to the TWAIN-compliant application software, click **Exit**.

## ADJUSTING VIDEO SETTING

To adjust your camera's video settings, click on **Setting** on the TWAIN window. The *Properties* screen appears.



For the best results, follow these hints:

**Brightness and Contrast** — Your camera comes with an intelligent light detector that automatically adjusts the light source's brightness according to your environment's ambient light. You can also slide **Brightness** and **Contrast** (also known as tone correction) according to the way your environment is lit.

**Hue** — Slide **Hue** to adjust the hue of the color you see to your preferences.

**Saturation** — Slide **Saturation** to adjust the image's color intensity. The higher the saturation level (up to 20), the greater the color intensity. If you adjust the saturation level to 0 (zero), the image appears in gray scale.

**Sharpness** — Slide **Sharpness** to adjust the image's sharpness to your preferences. Increasing the sharpness sharpens the image, decreasing it blurs the image.

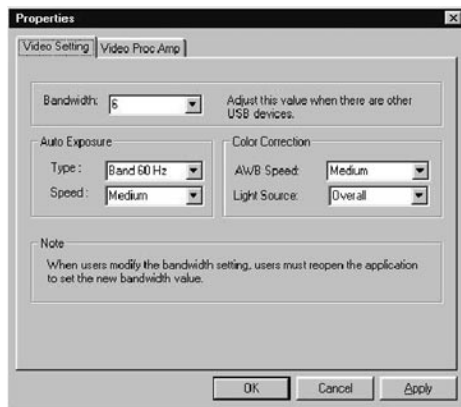
**White Balance** — Your camera automatically adjusts the color you see (called white balance) according to the ambient light in your environment. You can also slide **White Balance** to adjust the white balance you see through the camera.

**Default** — Return all settings to their default values.

## ADJUSTING VIDEO PROC AMP (PROCESSOR/AMPLIFIER)

Your camera's video processor/amplifier lets you adjust more of the camera's video settings. To adjust the camera's video processor/amplifier settings, click on **Setting** on the TWAIN window. The *Properties* screen appears. Then click on **Video Setting** on the *Properties* screen.





For the best results, follow these hints.

### Bandwidth

Your camera and other USB devices connected to your computer use differing amounts of *bandwidth* (an amount of information per unit of time) as they work with the computer. The USB controller in your computer has a fixed amount of bandwidth, which all attached USB devices must share.

Your camera's default bandwidth setting is 6. You might need to adjust this value in either of the following circumstances:

- **USB Controller Bandwidth Exceeded** appears in Windows. If this happens, select **5** to reduce the amount of USB bandwidth used by the camera.

**Note:** Selecting **5** might reduce the camera's frame rate.

- The camera's frame rate is too slow for your needs. If this happens, select **7** to increase the amount of USB bandwidth used by the camera.

### Auto Exposure

Adjust these values in any of the following circumstances.

#### Type:

- Select **Band 50Hz** if your AC power source's frequency is 50 Hz.
- Select **Band 60Hz** if your AC power source's frequency is 60 Hz (most AC power in the United States is 60 Hz).
- Select **Normal AE** (Auto Exposure) to set the camera to its auto exposure mode.

#### Speed:

- Select **Stop AE** to stop auto exposure.
- Select **Fast** to expose the image to light at fast speed.
- Select **Medium** to expose the image to light at medium speed.
- Select **Slow** to expose the image to light at slow speed.

### Color Correction

Adjust these values in any of the following circumstances.

#### AWB (Auto White Balance):

- Select **Stop AWB** to turn off auto white balance.
- Select **Fast** to turn on fast auto white balance.
- Select **Medium** to turn on medium auto white balance.
- Select **Slow** to turn on slow auto white balance.

#### Light Source:

- Select **Overall** for images using a mixture of light sources, or if you are not sure what type of light source will be available.

- Select **Home** for images using a typical home light source.
- Select **Office** for images using a typical office light source.
- Select **Outdoor** for images using an outdoor light source.

## **Troubleshooting**

This section provides information about maintaining the camera and helping you solve problems you might encounter while using it. If you continue to experience problems, or the problem you have is not covered in this manual, contact your local RadioShack store.

Problem	Solution
The camera does not work.	Make sure the camera is connected correctly to the computer.
<b>No capture device found</b> appears.	Make sure the camera is connected correctly to the computer.
	Locate the camera in the Windows <i>Control Panel</i> , double click <b>Multimedia</b> , click <b>Devices</b> , then select <b>Video Capture Devices</b> . If the camera is not listed, unplug the camera, plug it in again, then reinstall the driver (see "Installing/Testing the Software/Hardware" on Page 4). If the camera is listed but other cameras are also installed, disable all cameras, enable the camera, then try again.
	To remove the driver, go to <i>Control Panel</i> , double click <b>System</b> , click <b>Device Manager</b> , and select <b>Image Devices</b> . Select the driver for your camera, click <b>Remove</b> , then reinstall the driver (see "Installing/Testing the Software/Hardware" on Page 4).
<b>Camera not directed</b> appears.	Unplug the camera then plug it back in. Then restart your computer.
	Reinstall the software.
Image display window appears black, blue, or green or no image appears.	Make sure the camera is connected correctly to your computer and the lens is clean and not obstructed by other objects.
No camera image or no motion in video.	Unplug the camera then plug it back in. Then restart your computer.

Problem	Solution
After installing the camera software, the software does not detect the camera.	Some computers are shipped without the USB port mode enabled. To enable the USB port, you must run your computer's CMOS setup program. This setup program is only available when you power up the computer. Since the procedure is different for each system, refer to your computer's owner's manual for details.
Blurred video/still image.	<ol style="list-style-type: none"> <li>1. Adjust the focus (see "Installing/Testing the Software/Hardware" on Page 4).</li> <li>2. Use the application software to adjust the sharpness settings.</li> </ol>
Camera software stops working after installing other application programs.	Installing other applications sometimes changes the computer's system registry so that the camera no longer works. If this happens, reinstall the camera's driver (see "Installing/Testing the Software/Hardware" on Page 4).
<b>USB Controller Bandwidth Exceeded</b> appears.	Adjust the bandwidth within your camera's video processor/amplifier settings. See "Adjusting Video Proc Amp (Processor/Amplifier)" on Page 8.
	If your computer has more than one USB port, try plugging the camera into a different port.
	Unplug any unneeded USB devices.

If you have any questions regarding the bundled application software, contact the respective software companies listed in the software's owner's manuals.

## CARE

Keep the camera dry; if it gets wet, wipe it dry immediately. Use and store the camera only in normal temperature environments. Handle the camera carefully; do not drop it.

Never use harsh or abrasive cleaners or organic solvents on the camera or on any of its parts.

To remove dust and dirt, blow gently on the camera's lens. Moisten the lens by breathing lightly on it.

Wipe the lens gently with a soft lint-free cloth or an untreated lens-cleaning tissue.

Do not use a cleaning solution unless it is designed specifically for PC camera lenses.

Do not wipe the camera's lens with chemically treated eyeglass lens tissues as it might scratch the lens.

Modifying or tampering with the camera's internal components can cause a malfunction and might invalidate its warranty. If your camera is not performing as it should, take it to your local RadioShack store for assistance.

### Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor, Fort Worth, TX 76102

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